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09/816,602	03/23/2001	Mark Lynn Jensen	1327.010US1	6174

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EXAMINER

WINTER, GENTLE E

ART UNIT PAPER NUMBER

1746

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/816,602

Applicant(s)

JENSON ET AL.

Examiner

Gentle E. Winter

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 54-83 is/are pending in the application.
- 4a) Of the above claim(s) 62-65 and 78-80 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29, 54-61, 66-77 and 81-83 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/15/03.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant has rewritten claims 1-12 to depend from claim 13 and deleted the independent and distinct case. Ideally, claims 1-12 would have been cancelled and rewritten, no additional fees are required for claims as long as the number cancelled is equal to the number added. The claims have been considered, and treated on the merits, in an attempt to expedite prosecution; the originally restricted claims (drawn to a case) are still restricted. This application contains claims drawn to an invention nonelected with traverse in Paper No. 050203. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01. With respect to claims 54 *et seq.* that invention is *a battery* and a *device shell*. The currently pending claims are drawn to an *electrically powered device*, not to a battery and not to case.
2. During telephone call with Charles Lemaire on February 5, 2004, Gentle Winter required an election of species to pick a device for examination. The pacemaker was elected. Claims 62-65 and 78-80 are withdrawn as drawn to a non-elected species.

Drawings

3. The drawings were objected to as failing to comply with 37 CFR 1.84(p)(5) because they failed to comply with certain formalities. The objection(s) are withdrawn; while the drawings appear to be informal, they are readily reproducible and as such are seemingly acceptable. At this time all mail is scanned and delivered electronically, this examiner can only receive the scanned black and white versions of the drawings.

Claim Objections

1. Claim 23 and now claim 3 remains/is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically claim 23 disclosing that the battery is "sputtered on one of the interior surface or exterior surface." The claim is drawn to the apparatus not the method of making the apparatus. Sputtering is a method of manufacture not a structural limitation. The claim is rejected with its base claim. Applicant suggested that claim 23 is a product by process. The process is not given weight, the resulting structural/compositional difference is where patentability turns. The cited case, *In re Pilkington* (CCPA) 162 USPQ 145 stands of the proposition that product-by-process claim satisfies 35 U.S.C. 112 where differences between applicant's article and prior art article are not particularly susceptible to definition by conventional recitation of properties or structure. Nonetheless, it is the properties or structures imparted by the process that are patentable, not a process providing a known result. There is nothing in the record suggesting that the process is imparting any structure. The objection to the claim remains, however, to preserve applicants' right to appeal the claim, the claim is rejected on the merits via its independent claim. Applicant may also provide information showing that some unique result is obtained by sputtering.

Response to Arguments

4. Applicants argue that the Radmall (WO 92/19090) does not teach a shell. The argument

Art Unit: 1746

is not persuasive. Since the rejected claims did not disclose any shape, the reference is believed to have read on the claim(s). Furthermore, this examiner believes that the prior art of record does properly show a shape that is wholly consistent with convention understanding of the relevant terms.

5. As to the argument analogizing rubber bands and flywheels, applicant is directed to the sentence indicating "Nonetheless, to be rigorous the '110 reference provides the missing element [a capacitor] and explicitly provides the motivation for making the combination". Thus the inherency argument, while believed to be wholly accurate, was supplemented by a second reference explicitly disclosing the missing element and providing the motivation for making the instant combination. Namely, "the artisan would have been motivated to make the combination for the reason explicitly set forth in '110, namely to accommodate inrush current requirements for IC 64. Specifically, when current demands exceed the capability of battery 60 to supply surge current, for example, due to inductive coupling or battery structure, inrush current is supplied by capacitor 62." For the foregoing reasons applicants' arguments are not persuasive.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 61, 63, 65 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not

Art Unit: 1746

described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification and drawings fail to disclose anything helical. Perhaps cylindrical was contemplated.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-29, 59-61, 66-75, and 81-83 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Specifically, what electrically powered device is being claimed in claims 1-29, 59-61, 66-75, and 81-83?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 13-27 is rejected under 35 U.S.C. 102(b) as being anticipated by WO 92/19090 ('090).
2. Claim 13 is drawn to an electrically powered device comprising: a shell; and a battery integrated with the shell. The same is disclosed in the '090 reference which reads on claim 13 as

Art Unit: 1746

in the following manner, '090 discloses an electrically powered device (circuit board) comprising a shell (the inside surface of a case, see e.g. page 3 second paragraph); and a battery integrated with the shell (integrally formed power cell element 7). The shell has an interior where the battery resides.

3. As to claim 14, disclosing that the electrically powered device of claim 13 further comprises a trace (need for connecting wires is eliminated, and at page 2 last paragraph "electrically conductive surfaces"); and a site adapted to receive an electrically powered component, wherein the battery, the trace and the electrically powered component form a portion of a circuit. See e.g. page 2 paragraph 2, disclosing a cell integrally formed in the circuit. The shell has an interior where the battery resides.
4. As to claim 15, disclosing that the shell is a portion of an enclosure, the same is disclosed at e.g. page 2 paragraph 2, disclosing that the cell/circuit board in the casing/shell.
5. As to claim 16, disclosing that the battery is formed within the shell, the same is disclosed at page 2 paragraph 2, disclosing that the cell is formed integrally with the circuit board.
6. As to claim 17 further limiting claim 16 and disclosing that the battery is comprised of a plurality of layers. The same is disclosed at *inter alia* page 6, paragraphs 1-3.

Art Unit: 1746

7. As to claim 18, further limiting claim 16 and disclosing that contacts associated with the battery, wherein the shell has an interior surface and an exterior surface, wherein the contacts are positioned near one of the interior surface or exterior surface. The same is disclosed at page 6, paragraph 4, disclosing through hole plating.
8. As to claim 19, disclosing further limiting claim 18 and disclosing that there are a plurality of contacts associated with the battery, wherein the contacts can be configured to produce a plurality of different battery hook ups. The same is disclosed at page 7, paragraph 3 disclosing that there may be a plurality of cells linked in series or in parallel. Each battery includes a plurality of contacts.
9. As to claims 20 and 23, disclosing that the battery is formed on the shell. The same is disclosed at page 2, paragraph 2, disclosing "it is possible to eliminate the requirement for a separate casing, since, in effect, the circuit performs that function."
10. As to claim 21, further limiting claim 20 and disclosing that the shell has an interior surface and an exterior surface, wherein the battery is formed on one of the interior surface or exterior surface. The same is disclosed at page 2, paragraph 2, disclosing "it is possible to eliminate the requirement for a separate casing, since in effect the circuit performs that function." Continuing that the power supply is readily "accommodated in the available space provided by the board."

11. As to claims 22 and 24, further limiting claim 20 and disclosing that there is a protective layer placed over the battery. The same is disclosed at page 2, paragraph 2, the circuit board will inherently serve this function.
12. As to claim 25, further limiting claim 20 and disclosing a trace and a site adapted to receive an electrically powered component, wherein the battery, the trace, and the electrically powered component form a portion of a circuit. The same is disclosed at e.g. page 2 paragraph 2, disclosing the circuit and the battery. The traces are disclosed in *inter alia* paragraph 3, which continues onto the top of page 3.
13. As to claim 26, further limiting claim 20 and disclosing that the shell has an interior surface and an exterior surface, wherein the battery is formed on the exterior surface of the shell, said shell further comprising electrical contacts for the battery which are positioned near the interior surface of the shell. The same is disclosed at *inter alia* page 2 paragraph 2. The battery is integral with the case and the circuitry is enclosed by the battery/case. Because the circuitry is on the "inside", the battery is, of necessity, on the "outside".
14. As to claim, 27 further limiting claim 26 and disclosing a trace on the interior surface of the shell and a site positioned on the interior surface of the shell adapted to receive an electrically powered component, wherein the battery, the trace and the electrically powered component form a portion of a circuit, the same is disclosed at *inter alia* page 2 paragraph 3 and page 3 full paragraphs 1-3. The electrical connection to the battery by the conductive surface of the circuit

board is disclosed. The circuit board is disclosed to include, at e.g. page 5, paragraph 3 "circuit components (5) are soldered to these tracks to form a circuit."

11. Claims 1-7, 12, 13-25, 59-61, 66-75 and 81-83 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 5,180,645 to More. (More). More discloses an electrical device (radio) including a first shell that forms a portion of an enclosure for the device and a battery is integrated with the shell and the battery is formed as one or more layers integral to the first shell. See figure 3 and relevant associated text especially at column 3, line 51 *et seq.* Also see the column 1, line 5 *et seq.* disclosing a "solid state battery inlaid in a product housing or substrate" and column 3, line 67 *et seq.* disclosing "other arrangements having the battery 10 on other housing walls or in printed circuit boards or flex circuits *within* the housing 22". The radio shell is convex from an outside perspective. The battery is comprised of a successive plurality of layers upon the shell see figure 1 and relevant associated text especially at column 2, line 47 *et seq.* The contacts can be configured to produce a plurality of different battery hook-ups. The battery is on the shell. "Accordingly, a battery integrally *formed* in a substrate, comprises a first current collector embedded in the substrate...". Column 2, line 29 *et seq.* Figure 3 shows the battery formed on the interior surface. However there is no reason it could not be formed on the exterior surface. Member 2, (figure 1 and relevant associated text) is a protective layer over the battery. Sputtering is not disclosed to impart any particular feature. The trace 9, and radio are part of the same circuit. Figure 3 shows the radio encased. In addition to the solid-state batteries mentioned, some type of supercapacitors can also be used as power sources.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over '090 as discussed above and United States Patent No. 5,448,110 to Tuttle et al. ('110).
2. Each and every limitation of claims 28 and 29 are identically disclosed in the '090 reference as set forth above, except that the '090 reference apparently fails to explicitly disclose a capacitor. It is noted that the circuit of the '090 reference is believed to include a capacitor and that the disclosed battery would potentially meet the structural requirement for a capacitor, in that both are energy storage mediums. Nonetheless to be rigorous the '110 reference provides the missing element and explicitly provides the motivation for making the combination.
3. As to claims 28 and 29, disclosing that there is a capacitor integrated within the shell the same is disclosed each and every limitation except the capacitor is disclosed in '090, the capacitor is disclosed see e.g. column 8, line 56 *et seq.* The artisan would have been motivated to make the combination for the reason explicitly set forth in '110, namely to accommodate inrush current requirements for IC 64. Specifically, when current demands exceed the capability

of battery 60 to supply surge current, for example, due to inductive coupling or battery structure, inrush current is supplied by capacitor 62.

12. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,433,096 to Janssen (Janssen) and WO 97/39491 to Lew et al. (Lew)

13. As to claims 13, 1 drawn to an electrically powered device (key) including a first and second shell that forms a case with a living hinge (column 7, line 14 *et seq.* 60), and the case is adapted to enclose at least a portion of the electrically powered device (namely, a transponder 2), and a battery is integrated into first shell wherein the battery is contoured as one or more layers integral to the first shell and bonded to the shell, and a protective cover ("cover members may either be separate or hingedly interconnected column 3, line 10 *et seq.*) is placed over the battery and the battery includes a trace. The first shell is convex (see figure 10 and relevant associated text). The battery includes layers, and the device includes a capacitor ("This DC voltage [from an external battery] is then regulated down, stored in a small capacitor within transponder 2 and used to supply the transponder's electronic circuitry. Column 4, line 54 *et seq.*) with the first shell.

14. Each and every limitation of claims 13, from which claims 1-12 and 14-29 depend is identically disclosed in Janssen et al., as set forth above, except Janssen fails to explicitly disclose a layer battery. Lew discloses the missing part, namely an integrated battery that is suitable for bonding to "an applications housing or structure. This integrated power source can independently power the electronic application. It can also serve as a casing or housing by taking the shape of the application enclosure." Abstract of Lew. Thus, Lew provides the missing part, and additionally Lew provides the explicit motivation for making the claimed

combination. Namely, Lew states at page 2, starting at line 4 "recognizing the importance of providing an integrated battery into or part of an equipment housing." The artisan would have been motivated to include a battery into the system of Janssen in an effort to make a more robust electrical device, which is less dependant on vehicle transmitted electromagnetic radiation. By adding a battery to the key the key would be able to store charge and thereby operate in less proximal areas because greater transmission power for longer periods of time would be available, allowing for a more robust system and dependable.

15. Claims 59-61, and 66-77 and 81-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Janssen, Lew and United States Patent No. 6,238,813 to Maile et al. (Maile). As to claim 59, disclosing an "electric powered" device which has been construed as an "electrically powered device" including a pacemaker. Lew discloses: "No longer will conventional restraints require a battery as a separate add-on component thereby dispensing with the need for a separate battery compartment and the cables historically necessary to connect the power source to the electronic components." Page 2 starting at line 30. Lew goes on to disclose "In its most general sense, the nature of polymer battery technology is such that a chassis or housing can be molded into a desired shape using the battery material itself". This would include folding onto itself and "helical" rolling onto itself. The latter, at least inasmuch as helical and spiral are equivalent, would be especially appropriate in medical devices, where sharp corners are undesirable. Maile discloses rectangular and cylindrical integral battery structures.

Art Unit: 1746

16. As to claims 66-75 and 81-83, disclosing specific types of batteries, it is noted that the invention is not drawn to a battery, but rather to an electronic device (identified as a pacemaker). The battery is not an electronic device as contemplated by the inventor. The claimed battery is disclosed in Maile and throughout Lew. In a larger sense, the optimization in the selection of a type of battery is well within the grasp of the artisan. The artisan would select a battery that is suitable for the specified use.

17. With respect to claims 76 and 77, as indicated above, Lew explicitly discloses that the power source can take any shape, and the use of an antenna for proximal recharging (page 8 and 21). Maile discloses that the device is a pacemaker (title) and disclose that the battery is rolled or folded over itself see figures 1, 2, 4 and 5 and relevant associated text.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
2. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 1746

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

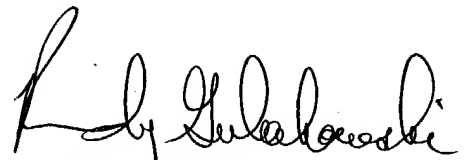
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gentle E. Winter whose telephone number is (571) 272-1310.

The examiner can normally be reached on Monday-Friday 7:00-3:30.

4. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Gentle E. Winter
Examiner
Art Unit 1746

February 7, 2004



RANDY GULAKOWSKI
SUPERVISORY PATENT EXAMINER
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